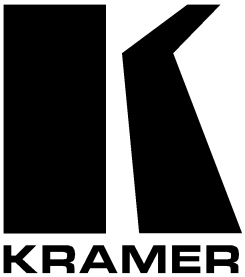
Kramer Electronics, Ltd.



USER MANUAL

Model:

PT-1CAT5

CAT5 Line Protector

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1 Introduction

Welcome to Kramer Electronics (since 1981): a world of unique, creative and affordable solutions to the infinite range of problems that confront the video, audio and presentation professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better! Our 500-plus different models now appear in 8 Groups[1], which are clearly defined by function.

Congratulations on purchasing your unique **PT-1CAT5**, which is ideal for Category 5 and network applications, network routers, hubs and workstations.

The package includes the following items:

- **PT-1CAT5** *CAT5 Line Protector*
- This user manual[2]

2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual
- Use Kramer high performance high resolution cables[3]

2.1 Quick Start

This quick start chart summarizes the basic setup and operation steps for the **PT-1CAT5**.

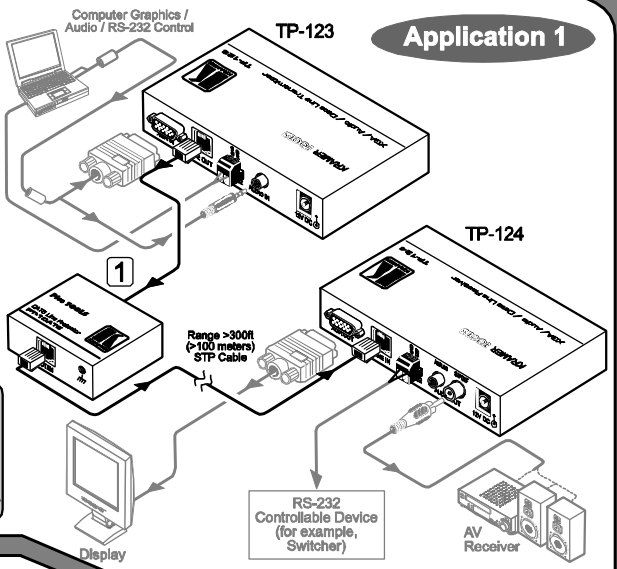
1 GROUP 1: Distribution Amplifiers; GROUP 2: Video and Audio Switchers, Matrix Switchers and Controllers; GROUP 3: Video, Audio, VGA/XGA Processors; GROUP 4: Interfaces and Sync Processors; GROUP 5: Twisted Pair Interfaces; GROUP 6: Accessories and Rack Adapters; GROUP 7: Scan Converters and Scalers; and GROUP 8: Cables and Connectors

2 Download up-to-date Kramer user manuals from our Web site: http://www.kramerelectronics.com

3 The complete list of Kramer cables is on our Web site at http://www.kramerelectronics.com

Quick Setup

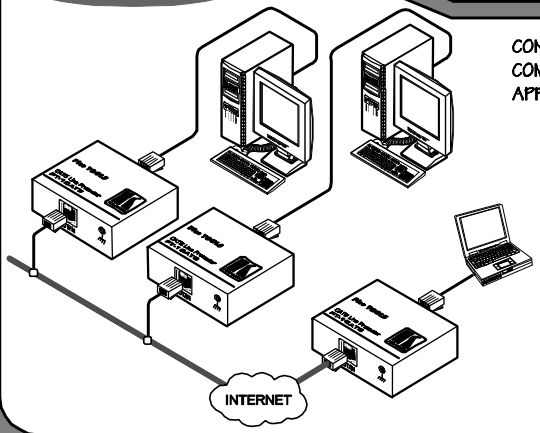
CONNECT THE UNIT BETWEEN A TWISTED PAIR TRANSMITTER AND RECEIVER SYSTEM



1. Connect a tranemitter to the CAT5 IN/OUT connector
2. Connect the OUT/IN connector to a receiver

Application 2

CONNECT THE UNIT NEXT TO A COMPUTER IN NETWORKING APPLICATIONS



CONNECT THE GROUNDING RIVET TO A GROUNDING LINE, SUCH AS A METAL RACK OR A METAL PART OF THE COMPUTER

3 Overview

The Kramer **PT-1CAT5** *CAT5 Line Protector* provides protection for Category 5 and network applications[1], network routers, hubs and workstations from lightening and transient voltage surges.

The **PT-1CAT5**:

- Is connected anywhere on the CAT5 line via two RJ-45 LINE connectors
- Includes four protection circuits and a grounding rivet. Once the grounding rivet is connected to a grounding line, the CAT5/LAN line is protected

The **PT-1CAT5** is housed in a Pico TOOLS enclosure.

Achieving the best performance means:

- Positioning your **PT-1CAT5** away from moisture and excessive sunlight and dust, and avoiding interference from neighboring electrical appliances
- Connecting only good quality connection cables, thus avoiding interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)

4 Your PT-1CAT5

Figure 1 and Table 1 define the **PT-1CAT5** *CAT5 Line Protector*:

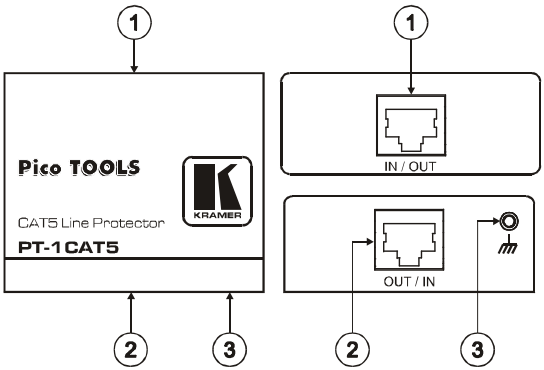


Figure 1: PT-1CAT5

Table 1: PT-1 CAT5 Features

#	Feature	Function
1	*IN / OUT* CAT5 Connector	Connect to the cable that connects to the device
2	*OUT / IN* CAT5 Connector	Connect to the cable that connects to the device
3	Grounding Rivet	Connect to a grounding line

1 Applies to 10-base T and 100-base T Ethernet standards, but not for 1000-base T

5 Using the PT-1CAT5

This section describes how to use the **PT-1CAT5** in:

- A twisted pair transmitter and receiver system (see section 5.1)
- Network applications (see section 5.2)

5.1 Using in a Twisted Pair Transmitter and Receiver System

You can connect your **PT-1CAT5** *CAT5 Line Protector* via two CAT5 cables between a Twisted Pair Transmitter and Receiver system.

To connect the **PT-1CAT5**, between a Kramer **TP-123** transmitter and a Kramer **TP-124** receiver, as the example in Figure 2 illustrates, do the following:

1. Connect a transmitter (for example, the Kramer **TP-123** *XGA / Audio / Data Line Transmitter*[1]) to the CAT5 IN/OUT connector[2] on the **PT-1CAT5**.
2. Connect the other CAT5 OUT / IN connector[2] to a receiver (for example, the Kramer **TP-124** *XGA / Audio / Data Line Receiver*[1]).
3. Connect the grounding rivet to a grounding line[3] (not shown in Figure 2).

1 For details of how to connect the TP-123 and the TP-124 twisted pair transmitter and receiver system, you can download the user manual from our Web site: http://www.kramerelectronics.com

2 Either one of them

3 For example, a metal rack

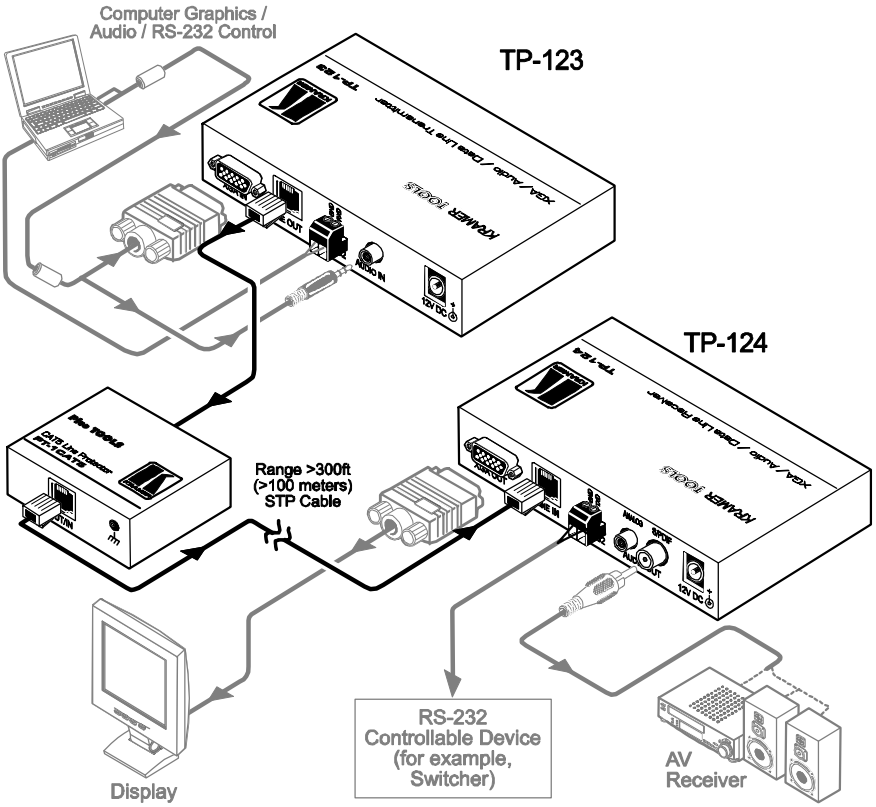


Figure 2: Connecting the PT-1CAT5

5.2 Using in a Network Application

You can use the **PT-1CAT5** in networking applications. In this example, a **PT-1CAT5** unit is connected next to each computer in the network, and the grounding rivet is connected to a grounding line[1] (not shown in Figure 3).

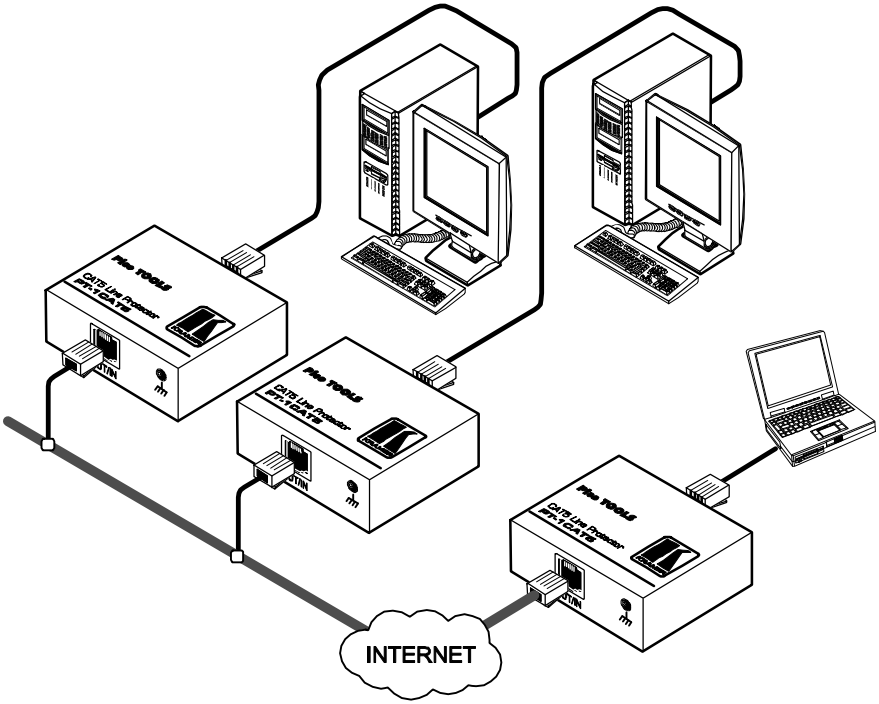


Figure 3: Connecting the PT-1CAT5 in a Networking Application

6 Technical Specifications

Table 2: Technical Specifications[2] of the PT-1CAT5

PORTS:	2 RJ-45 connectors
DIMENSIONS:	6.22cm x 2.41cm x 5.24cm (2.45" x 0.95" x 2.06"), W, D, H.
WEIGHT:	0.040 kg (0.09lbs.) approx.

1 For example, a metal part of the computer

2 Specifications are subject to change without notice

LIMITED WARRANTY

Kramer Electronics (hereafter *Kramer*) warrants this product free from defects in material and workmanship under the following terms.

HOW LONG IS THE WARRANTY

Labor and parts are warranted for seven years from the date of the first customer purchase.

WHO IS PROTECTED?

Only the first purchase customer may enforce this warranty.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed by Kramer, or which is not purchased from an authorized Kramer dealer. If you are uncertain as to whether a dealer is authorized, please contact Kramer at one of the agents listed in the Web site www.kramerelectronics.com.
2. Any product, on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
   i) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature
   ii) Product modification, or failure to follow instructions supplied with the product
   iii) Repair or attempted repair by anyone not authorized by Kramer
   iv) Any shipment of the product (claims must be presented to the carrier)
   v) Removal or installation of the product
   vi) Any other cause, which does not relate to a product defect
   vii) Cartons, equipment enclosures, cables or accessories used in conjunction with the product

WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items. We will not pay for the following:

1. Removal or installations charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls or programming. These costs are the responsibility of the Kramer dealer from whom the product was purchased.
3. Shipping charges.

HOW YOU CAN GET WARRANTY SERVICE

1. To obtain service on you product, you must take or ship it prepaid to any authorized Kramer service center.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage, and should be included in any shipment of the product. Please also include in any mailing a contact name, company, address, and a description of the problem(s).
3. For the name of the nearest Kramer authorized service center, consult your authorized dealer.

LIMITATION OF IMPLIED WARRANTIES

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

EXCLUSION OF DAMAGES

The liability of Kramer for any effective products is limited to the repair or replacement of the product at our option. Kramer shall not be liable for:

1. Damage to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or:
2. Any other damages, whether incidental, consequential or otherwise. Some countries may not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from place to place.

NOTE: All products returned to Kramer for service must have prior approval. This may be obtained from your dealer.

This equipment has been tested to determine compliance with the requirements of:

EN-50081:	"Electromagnetic compatibility (EMC); generic emission standard. Part 1: Residential, commercial and light industry"
EN-50082:	"Electromagnetic compatibility (EMC) generic immunity standard. Part 1: Residential, commercial and light industry environment".
CFR-47:	FCC Rules and Regulations: Part 15: "Radio frequency devices Subpart B Unintentional radiators"

CAUTION!

- Servicing the machines can only be done by an authorized Kramer technician. Any user who makes changes or modifications to the unit without the expressed approval of the manufacturer will void user authority to operate the equipment.
- Use the supplied DC power supply to feed power to the machine.
- Please use recommended interconnection cables to connect the machine to other components.

For the latest information on our products and a list of Kramer distributors, visit our Web site: www.kramerelectronics.com, where updates to this user manual may be found.
We welcome your questions, comments and feedback.

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